



Requirements for Plans Review Submittal, One- and Two-Family Dwellings
INFORMATION BULLETIN NO. 100

June 26, 1998 (Revised June 4, 2014)

City Planning & Development - Development Services

City of Kansas City, Missouri

<http://www.kcmo.org/codes/>

The purpose of this document is to advise you of the information needed by this office in order to properly evaluate a permit application for your residential project. When you are ready to submit your completed permit application, you may do so by making an appointment for plans review at the following address:

City Planning & Development - Development Services (CPD-DS)
Plans Review Division, One- and Two-Family Plans Branch
414 E. 12th Street – 5th Floor
Kansas City, Missouri 64106
Telephone (816) 513-1500 FAX (816) 513-1505

This guideline has been prepared in accordance with Sections 18-18(a) and 18-18(b) of the Kansas City Building and Rehabilitation Code which authorizes the Director of the City Planning & Development Department to require plans to be submitted for review and approval prior to issuance of permits. **City-stamped, reviewed plans are required for all permits issued for work on one- and two-family residences, with the following exceptions (where plans are not required, the applicant shall submit a written scope of work):**

1. Conventional construction and replacement of open porches and sun decks without roofs. (Note: A site plan is required with all applications for permits to construct sun decks.).
2. Construction, removal or relocation of non-bearing walls.
3. Installation of roof sheathing and light-weight shingles.
4. Installation of doors and windows not exceeding 4 feet in width in bearing walls.
5. Construction of new closets and bathrooms which do not include construction, removal, or relocation of a bearing wall.
6. Basement finishes which do not include structural modifications.
7. Repair in kind including minor structural repairs such as replacement of several joists/studs/rafters not to exceed more than 25% of the total structural component.
8. All mechanical/plumbing/electrical installations. (Note: Plans are required for electrical services 400 amps and higher or involving a generator, and private sewage disposal systems such as septic tank/evaporation pond systems. See CPD-DS Information Bulletin Number 160 for plan requirements for electrical services and generators. See CPD-DS Information Bulletin Number 105 for plan requirements for private sewage disposal systems.)
9. Residential swimming pools. (Note: A site plan is required with all applications for permits to construct residential swimming pools).

It is the goal of this office to evaluate your project for code compliance and to clarify discrepancies in the plan review office rather than transferring problems to the field, resulting in time delays at critical times in the project and unnecessary, costly reconstruction.

Plans, engineering calculations, diagrams and other data shall comply with the *2012 International Residential Code* as further modified by the Kansas City Building and Rehabilitation Code and are to be submitted in two or more sets with each application for a permit. Plans, drawn to scale, shall be of sufficient clarity to indicate the nature and extent of work proposed and must show in detail that the design will conform to the provisions of applicable codes, ordinances, rules, and regulations. Plans are to be submitted for review to the CPD-DS staff. Please allow up to two days for the review of these plans. Plans certified by a registered architect or professional engineer as meeting the requirements of applicable codes and ordinances will be accepted in lieu of detailed plan review by staff and will be processed within one work day. Persons who are certified professional building designers and have the seal of the NCBDC (National Council of Building Design Certification) may also certify plans in the same manner. (See CPD-DS **Information Bulletin No. 103-Review/Certification of One- and Two-Family Dwelling Plans.**) Since permits cannot be issued until platting and/or lot split requirements have been met, please make certain that these processes have been completed before making application for a permit.

A complete permit application shall include the following:

- A. Completed building permit application form.
- B. Site plan. This is a scaled drawing of the property and is to include the following features/information:
 - 1. Legal description of the property, including applicable lot split approval number from the Department of Planning & Development for those lots created without a subdivision plat.
 - 2. Drawing scale and North arrow.
 - 3. Location and dimensions of all property lines.
 - 4. Platted building setback lines and easements. Platted building setback lines and easements may require greater setbacks than required by the Zoning Ordinance and may be found either on a mortgage survey or through the City Engineering Permit Counter, 5th Floor, City Hall, (816) 513-2552 or the public utility companies.
 - 5. Existing and proposed grade elevation contours of the land [Required only when a natural drainage way crosses the property. In those instances, plans shall be routed to Development Services – Land Development Division (CPD-LDD) for review and approval prior to issuance of building permits by CPD-DS. LDD may also require the applicant to submit a storm drainage study for review and approval].
 - 6. Dimensions of buildings and distances to other buildings on the same property, other improvements and property lines. Plot plans shall include all building projections beyond the foundation walls (bay windows, cantilevered floor areas, balconies, etc.). A note shall be included on each site plan stating the following: **PLOT PLAN INCLUDES ALL BUILDING PROJECTIONS BEYOND THE FOUNDATION WALLS.**

7. Boundaries of 100-year Regulatory Floodplain and Floodway. Floodplain boundaries are indicated on all subdivision plats recorded after 1978. See CPD-DS **Information Bulletin No. 120, Procedure for Obtaining A Floodplain Certificate**, if the building is to be located within the 100-year regulatory floodplain.
8. Location of the public right-of-ways adjacent to the property.
9. Location of required off-street parking, including paved driveway. A note shall be included on the site plan indicating the percent of the front yard that is covered by the driveway. NOTE: Parking and drive area shall not exceed 40% of front yard.
10. Information regarding any variance approvals which may have been received through the Board of Zoning Adjustment, as required.
11. Information regarding approvals received through the Landmarks Commission, as required.
12. Correct street address. (Addresses shall be assigned by CPD-DS for new construction.)
13. Location, width and length of proposed public sidewalk and drive approach. For unimproved streets (no curb, gutter or storm sewer) provide information regarding the size of the drainage culvert to be installed with the drive approach, and include total drainage area to culvert and percent impervious area within the drainage area, see Public Works Standard Drawing No. D – US – Driveways Unimproved Streets for construction standards and or consult with Information Technology Department, Strategy & Planning - GIS Division (513-3731)-for ortho maps with contours to assist in providing the information.

C. Foundation Plan. This is a scaled drawing of the proposed building foundation and is to include the following features/information:

1. A plan view of the building foundation system, including footings for covered decks and covered porches.
2. Show or indicate by note that all footings meet or exceed a minimum frost depth of 36 inches.
3. Unless otherwise indicated on plans, the soil load-bearing capacity shall be presumed to be 2,000 p.s.f.
4. Note on plans the required compressive strength of concrete (f'_c) to be used (2,500 – 3,500 psi minimum depending on location) and required air-entrainment.
5. Show the footing dimensions and footing reinforcement required.
6. Indicate foundation wall height, thickness, and required reinforcement. Foundation design shall be in accordance with 2012 IRC and CPD-DS Information Bulletin Number 114.
7. Show or indicate by note basement slab thickness and slab reinforcement required.
8. All foundation walls enclosing below grade space shall be dampproofed. The dampproofing shall extend from the edge of the footing to the finished grade (R-406.1). Note method of dampproofing or waterproofing to be used on basement walls.
9. Note type of vapor barrier to be used under slabs below grade.
10. Note on plans that foundation drainage will be in accordance with Section R-405, Foundation Drainage.
11. Basement egress openings as required by IRC Section R310.1 shall be detailed on the plan, including height of sill above finished floor.

D. Floor Plans. These are scaled drawings of the proposed building floor(s) and are to include the following features/information:

1. A plan view of each floor level of the building, including the basement.
2. Dimensions. Provide dimensions for each room and architectural feature, e.g. hallways, stairways, etc.
3. Use of each room (including basement/lower levels).
4. Show size and spacing of proposed floor and ceiling framing members, show entire member from bearing point to bearing point; provide grade and species of lumber or indicate minimum allowable extreme fiber stress (F_b) and modulus of elasticity (E) to be used for framing members. Provide dimensions and/or specifications for other types of structural elements used, e.g. steel framing, microlams, glulams, etc. (Framing information may be shown on floor plans or on separate framing plans.)
5. If pre-engineered wood trusses are used in floor framing, provide truss drawings which identify member sizes to be used. Wood trusses shall be designed in accordance with approved engineering practice (Sec. R-502.11). Truss drawings shall be sealed by an Engineer registered in the state of Missouri and shall include a truss layout plan and connection details.
6. Provide I-joist design information, layout plan and installation instructions.
7. Provide details of connections for ledgers (floor and ceiling) per requirements of IRC Table 507.2, 507.2.1 and Figure 507.2.1(1).
8. Show that all cantilevers will have at least a 3:1 back span and show how this element supports all imposed loads.
9. Show a minimum of two joists under each bearing wall, and more, where necessary to support the imposed loads.

E. Roof Information. These are scaled drawings of the proposed roof(s), including covered decks and porches, and are to include the following features/information:

1. A note that the roof is designed for 20 p.s.f. roof snow load (minimum).
2. A note on the type of roof covering to be used.
3. Show size and spacing of proposed roof framing members, show entire member from bearing point to bearing point; provide grade and species of lumber or indicate minimum F_b and E to be used for framing members. Provide dimensions and/or specifications for other types of structural elements used, e.g. steel framing, microlams, glulams, etc.
4. If pre-engineered wood trusses are used in roof framing, provide truss drawings. Wood trusses shall be designed in accordance with approved engineering practice (Sec. R-802.10). Truss drawings shall be sealed by an Engineer registered in the state of Missouri and shall include a truss layout plan and connection details.
5. Show required ceiling joist or rafter tie connection between rafters, or a ridge beam. Show required collar ties or ridge straps. Note compliance with sections R802, R802.3, R802.3.1, R802.11

F. Elevations. These are scaled drawings of the proposed building as viewed from each side and are to include the following features/information:

1. Exterior wall openings. Size and location of doors and windows. Note on plans that garage doors meet DASHA 90 MPH requirements. Note: Basement wall elevations will not be required because of varying site conditions which may be encountered.
 2. Show size and spacing of wall framing members; provide grade and species of lumber or indicate minimum F_b and E to be used for framing members. Provide dimensions and/or specifications for other types of structural elements used. (Framing information may be shown on elevations, floor plans, or on separate framing plans.) Note: In bearing walls, studs which are not more than ten feet in length shall be spaced not more than is specified in Table No. R-602.3(5) for the corresponding stud size. Those studs greater than ten feet in length shall be designed by a professional engineer or registered architect.
 3. Show water-resistive exterior wall barrier in wall section or on plan in accordance with IRC Section R703.2.
 4. Show a detail on plans and note compliance with provisions of R602.3 for continuous studs between floor and roof/ceiling diaphragm or provide design from Design Professional.
- G. Details and Notes. Details are drawings of portions of the building showing in greater detail how these areas of the building are constructed. Notes are added to drawings and details clarifying how building code requirements are met in certain instances. Details and notes are to address the following features/information:
1. Windows. Note where safety glazing is to be installed; note size, location, and type of windows used to satisfy bedroom, basement, and attics egress requirements. Show that basement egress window wells comply with IRC R310.2. Note window fall protection requirements per section R612.2.
 2. Stairs. Note rise and run, headroom clearance and width; provide details for special stairs (e.g., spiral, winder, and circular).
 3. Dwelling unit separations. Provide detail or note of proposed construction for fire separation wall between duplex units and/or townhouse units. Fire resistance rated assembly design numbers are to be provided.
 4. Garage separation. Provide detail or note of proposed construction between attached garage and living space in the dwelling. Self closing devices are required for garage to dwelling separation doors. (No openings are allowed between bedrooms and garage areas.)
 5. Structural Details:
 - a. Provide sufficient details and/or sections to show the transfer of roof and floor loads (including point loads) through the various structural elements in the building.
 - b. Provide sufficient details to clearly demonstrate the structural adequacy in such situations as offset bearing walls, cantilevered beams, and vaulted ceilings.
 - c. Provide thickness and required reinforcement for any raised concrete slab or any concrete slab on fill material that exceeds 24 inches of compacted sand or gravel or 8 inches of compacted soil. This may entail a design which includes a combination of grade beams, piers, reinforced slab, and pier footings designed

to sustain live loads of 30 psf (sleeping areas), 40 psf (living areas), or 50 psf (garages; also 2000 lb concentrated load). Designs for these structural slabs shall be prepared and sealed by a professional engineer or registered architect. **CPD-DS Information Bulletin No. 114, One- and Two-Family Standard Garage Slab and Foundation Wall Details**, contains standard drawings which may be used, where applicable, in plans submittal in lieu of providing an engineered design.

- d. Note on plans the size of all beams, headers, and columns used. Note on plans that steel columns will be a minimum of schedule 40.
- e. Show connections for all major structural components on plans.
- f. Show that structure is capable of supporting and resisting uplift from any solar electric or water heating systems.
- g. Show the braced wall lines, note methods per IRC bracing naming convention, the location of the braced wall panels, and nailing pattern per method being used, detail the type of wind bracing used. Show required blocking above/below braced wall lines. Lateral bracing methods are not required to be shown for decks, including covered decks with no enclosing walls other than insect screening. Lateral bracing methods shall be shown for all covered decks or sun rooms and this bracing must be on a continuous foundation unless another engineered solution is presented. In lieu of the prescriptive requirements of the 2012 International Residential Code, CPD-DS will accept the use of the following optional narrow wall bracing methods:
 - APA – The Engineered Wood Association “Whole House Wall Bracing”, (available under the Publications link at www.apawood.org).
6. Energy conservation. Provide a note indicating conformance to the energy provisions of the IRC. Note type and thickness of wall, crawl spaces, basement, slab, and attic insulation to be used; include R-values for each. Show furring where employed to achieve required ceiling dimensions for insulation. Show U-value of doors and windows, and SHGC for windows.
7. Fire-resistive exterior wall construction. Where construction may occur within 5 feet of a property line, show details for required fire-rated construction exterior walls, eaves or other projections, or openings (as applicable). [KCBRC/IRC R302]
8. Security. Provide a note indicating conformance to the provisions of KCBRC/IRC R326 regarding building security.
9. Note on the drawings that an accessible connection point will be provided to a 20 foot concrete-encased electrode (footing rebar) for the electrical service grounding electrode conductor (ufer ground).
10. Note on plans that carbon monoxide detectors will be provided in accordance with IRC Section R315.

H. General:

1. Minimum size of paper: 11 inches x 17 inches
2. Number of plan sets. A minimum of two (2) sets of building plans will be required. One will remain with CPD-DS, and one will be required on the job site at time of inspection. If you desire, CPD-DS will stamp one additional set of plans at no extra

- charge. Photocopied plans may also be used on the job site for construction and inspections for one and two family construction.
3. Master plans. Should you have a house type that you would like to build repeatedly, you will not be required to resubmit building plans with each permit application, but you will be required to submit two copies of the site plan for each lot on which the master plan is to be built. CPD-DS approved master plans will only have to be resubmitted when a new code is adopted which may alter code requirements or when you wish to revise your house plans. Please assign your master plan a name or number for ease of reference. Once your master plan is approved, you may obtain future building permits on a walk-in basis from the CPD-DS 5th Floor Permit Center or by fax. See CPD-DS **Information Bulletin No. 109, FAX Permit Process**. In order to obtain a master plan permit on a walk-in basis, applicants must bring in their copy of the CPD-DS approved master plan for reference.
 4. Approved plans on job site. Please note that a copy of the City-stamped set of building plans (or master plan) and the City-stamped site plan will be required to be on the job site for all inspections. Please note that the complete set of City-stamped plans, including the site plan, shall be provided on site for each inspection where plans are required -- partial sets are not acceptable. **Failure to provide the City-stamped plans on the job site for the inspector's use may result in a disapproved inspection and assessment of reinspection fees.** Exceptions: City-stamped plans will not be required to be on the job site for the following types of inspections: a) backfill, b) slab where backfill material does not exceed 24 inches of compacted sand or gravel or eight inches of compacted earth, c) electrical service, except electrical services where stamped plans were required for permit issuance, d) gas service, and e) plumbing ground work. A photocopy of the approved building plans may be used on the job site for construction and inspections.
 5. You may wish to take advantage of CPD-DS's Express Plans Review which allows you to schedule an appointment for plans review and permit issuance; or, the option to submit your building plans electronically (see details at kcmo.gov/planning/electronic-plan-submittal/). A fee in addition to the building permit fee is required for Express Plans Review. (See CPD-DS fee schedule located on the Internet (www.kcmo.org) or call the Plans Review office.)
 6. When resubmitting for review, provide 2 sets of revised plans with all changes marked ('clouded'), and a letter addressing discrepancies by the discrepancy item number. Please provide the project address, project number, and applicant contact information.

Should you have any questions on this information bulletin, please contact the Supervisor of the One- and Two-Family Plans Branch or the Division Manager of Plans Review at (816) 513-1500.



City Planning & Development - Development Services

One & Two Family Dwelling Plans Review/Permit Submittal Form

☐ New Application ☐ Resubmittal ☐ Changes to Previously Approved Plans
Project Number CRSF- _____

Please be advised a complete application shall include plans as required by Information Bulletin No. 100 – Requirements for Plan Review Submittal, One and Two Family Dwellings.

Applicant, please fill out the following information: All lines are to be filled in (use N.A. if not applicable to your project)

Project Address: _____

Legal Description: _____

Scope of Work: (new building, addition, remodeling, etc.): _____

Applicant's Company Name: _____

Contact Person: _____ Position: _____

Address: _____ City, St., Zip: _____

Residential Contractor License No. _____

Phone Number: _____ FAX: _____ e-mail: _____

Total Project Valuation (less land costs): \$ _____

Building Valuation (this is total less mech, plbg, and elect): \$ _____

Building Gross Floor Area: _____ sq ft Finished Basement? YES NO Deck? YES NO
Covered Deck? YES NO

GIVE SEPARATE VALUES FOR THE FOLLOWING:

Building Valuation of Finished basement _____ sq ft \$ _____

Building Valuation of Open Deck _____ sq ft \$ _____

Building Valuation of covered Deck _____ sq ft \$ _____

CPD-DS USE ONLY: Landmarks Y____ N____ Zoning _____

Permit Description _____

Control Number: CRSF - _____ Plans Examiner: _____

☐ Express Fee ☐ Certified Plans – No Fee ☐ No Fee – Resubmittal/Drop Off